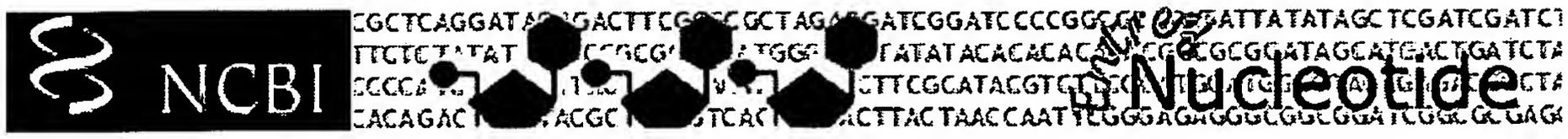

1: NM_002771. Reports Homo sapiens prot...[gi:21536451]

Links

Comment Features Sequence

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DEFINITION  Homo sapiens protease, serine, 3 (mesotrypsin) (PRSS3), mRNA.
ACCESSION   NM_002771 NM_007343
VERSION     NM_002771.2  GI:21536451
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SOURCE      Homo sapiens (human)
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            Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
            Hominidae; Homo.
REFERENCE   1  (bases 1 to 807)
  AUTHORS   Marsit,C.J., Okpukpara,C., Danaee,H. and Kelsey,K.T.
  TITLE     Epigenetic silencing of the PRSS3 putative tumor suppressor gene in
            non-small cell lung cancer
  JOURNAL   Mol. Carcinog. 44 (2), 146-150 (2005)
   PUBMED   16013053
  REMARK    GeneRIF: we determined the promoter hypermethylation status of
            PRSS3 in a case series study of primary NSCLC, and found
            methylation of this gene to be common, occurring in 53% (86 of 166)
            of tumors examined.
REFERENCE   2  (bases 1 to 807)
  AUTHORS   Nemoda,Z., Teich,N., Hugenberg,C. and Sahin-Toth,M.
  TITLE     Genetic and biochemical characterization of the E32del polymorphism
            in human mesotrypsinogen
  JOURNAL   FEBS Lett. 5 (2-3), 273-278 (2005)
   PUBMED   15855826
  REMARK    GeneRIF: The results classify E32del mesotrypsinogen as a frequent
            polymorphic variant, which is not associated with chronic alcoholic
            pancreatitis
REFERENCE   3  (bases 1 to 807)
  AUTHORS   Szmola,R., Kukor,Z. and Sahin-Toth,M.
  TITLE     Human mesotrypsin is a unique digestive protease specialized for
            the degradation of trypsin inhibitors
  JOURNAL   J. Biol. Chem. 278 (49), 48580-48589 (2003)
   PUBMED   14507909
  REMARK    GeneRIF: biological function of human mesotrypsin is digestive
            degradation of trypsin inhibitors
REFERENCE   4  (bases 1 to 807)
  AUTHORS   Katona,G., Berglund,G.I., Hajdu,J., Graf,L. and Szilagyi,L.
  TITLE     Crystal structure reveals basis for the inhibitor resistance of
            human brain trypsin
  JOURNAL   J. Mol. Biol. 315 (5), 1209-1218 (2002)
   PUBMED   11827488
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  REMARK     GeneRIF: X-ray structure in complex with the inhibitor benzamidine
             at 1.7 A resolution; crystal structure reveals basis for inhibitor
             resistance
REFERENCE    5  (bases 1 to 807)
  AUTHORS    Nyaruhucha,C.N., Kito,M. and Fukuoka,S.I.
  TITLE      Identification and expression of the cDNA-encoding human
             mesotrypsin(ogen), an isoform of trypsin with inhibitor resistance
  JOURNAL    J. Biol. Chem. 272 (16), 10573-10578 (1997)
   PUBMED    9099703
REFERENCE    6  (bases 1 to 807)
  AUTHORS    Stubbs,M.T., Huber,R. and Bode,W.
  TITLE      Crystal structures of factor Xa specific inhibitors in complex with
             trypsin: structural grounds for inhibition of factor Xa and
             selectivity against thrombin
  JOURNAL    FEBS Lett. 375 (1-2), 103-107 (1995)
   PUBMED    7498454
REFERENCE    7  (bases 1 to 807)
  AUTHORS    Wiegand,U., Corbach,S., Minn,A., Kang,J. and Muller-Hill,B.
  TITLE      Cloning of the cDNA encoding human brain trypsinogen and
             characterization of its product
  JOURNAL    Gene 136 (1-2), 167-175 (1993)
   PUBMED    8294000
REFERENCE    8  (bases 1 to 807)
  AUTHORS    Tani,T., Kawashima,I., Mita,K. and Takiguchi,Y.
  TITLE      Nucleotide sequence of the human pancreatic trypsinogen III cDNA
  JOURNAL    Nucleic Acids Res. 18 (6), 1631 (1990)
   PUBMED    2326201
REFERENCE    9  (bases 1 to 807)
  AUTHORS    Rinderknecht,H., Renner,I.G., Abramson,S.B. and Carmack,C.
  TITLE      Mesotrypsin: a new inhibitor-resistant protease from a zymogen in
             human pancreatic tissue and fluid
  JOURNAL    Gastroenterology 86 (4), 681-692 (1984)
   PUBMED    6698368
COMMENT      REVIEWED REFSEQ: This record has been curated by NCBI staff. The
             reference sequence was derived from X15505.1.
             On or before Dec 15, 2003 this sequence version replaced
             gi:20428774, gi:4506148.

             Summary: This gene encodes a trypsinogen, which is a member of the
             trypsin family of serine proteases. This enzyme is expressed in the
             brain and pancreas and is resistant to common trypsin inhibitors.
             It is active on peptide linkages involving the carboxyl group of
             lysine or arginine. This gene is localized to the locus of T cell
             receptor beta variable orphans on chromosome 9. Additional
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             COMPLETENESS: complete on the 3' end.
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